

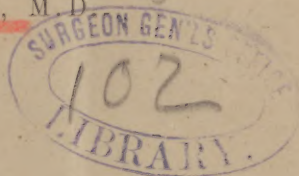
O'Neal (J. W. C.)
REPORT

OF THE

ADAMS COUNTY MEDICAL SOCIETY.

BY

J. W. C. O'NEAL, M.D.



EXTRACTED FROM THE TRANSACTIONS OF THE MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA FOR 1879.

PHILADELPHIA:
COLLINS, PRINTER, 705 JAYNE STREET.
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ADAMS is one of the southern tier of counties. Bounded north by Cumberland and York, east by York, west by Franklin and Cumberland Counties, and south by the State of Maryland.

None of the boundaries are natural, if we except part of the northern which is mountainous, and a small portion of the eastern, which is a rivulet or small stream coming out of the Pigeon Hills near Abbottstown, and uniting with the Conowago Creek near Berlin.

A part of the county is the water-shed dividing the flow originating the Conowago, from that which forms Marsh and Rock Creeks, the union of which near the Maryland line constitutes the Monocacy River.

The Conowago enters into the Susquehanna, whilst the Monocacy goes to the Potomac.

The drainage is complete through the northern and eastern portions of the county by Conowago Creek, whilst Marsh and Rock Creeks provide for the southern section. These principal streams have their fountain heads in the mountains and high grounds, rise quickly, drain thoroughly, and form much power for sawing and other milling purposes.

There is but little marshy or springy soil, no artificial water channels, and, as a consequence, little or no malaria.

The area is twenty-four by twenty-seven miles, containing five hundred and thirty-one square miles; three hundred and thirty-nine thousand eight hundred and forty acres, all of which is improved except fifty-eight thousand five hundred and nine acres. Fifty-six thousand one hundred and thirty-three acres *are in forest*.

Adams County has a population of thirty-two thousand, thirty thousand of whom are native white, fifteen hundred of foreign birth, and five hundred and fifty negroes.

Twenty-seven thousand five hundred have been born in the State, the balance are from Maryland, Virginia, New York, Ohio, New Jersey, and from foreign lands.

The towns and villages are—

Gettysburg with a population of	3100
Littlestown " " "	870
East Berlin " " "	1075
New Oxford " " "	690
York Springs Borough with a population of	550
Fairfield with a population of	260
Abbottstown " " "	325
Bendersville " " "	375
Middletown (Bigler P. O.) with a population of	150
Arendtsville with a population of	200
Mummasburg " " "	125
Cashtown " " "	150
McKnightstown " " "	140
Hampton " " "	150
New Chester " " "	125
Hunterstown " " "	150
McSherrustown " " "	250

Gettysburg is the county seat, situated about nine miles north of the Maryland line, fifty-two miles from Baltimore by turnpike and about seventy by rail, one hundred and eighteen W. by S. from Philadelphia, and near Rock Creek; latitude $39^{\circ} 49' 18''$, longitude $0^{\circ} 14' W.$, from Washington (Prof. Croll). Longitude $77^{\circ} 17' W.$ from Greenwich (Prof. Bickley).

It is the location of the Lutheran Theological Seminary and Pennsylvania College, has repute as the locality of the decisive battle in the *War of the Rebellion*, and as a summer resort for invalids. Its elevation is over five hundred feet above tide water at Philadelphia. It enjoys entire freedom from malaria, purity of air, and proximity to a number of springs holding a variety of medicinal waters alkaline in their character, and holding in natural solution the bicarbonates, with traces of lithia, iron, sulphur, etc., as represented in Stahle's, Howell's, Church's, Stremmel's, and Harmon's Springs.

The York Sulphur Springs are in the neighborhood of York Springs Borough, and in a locality which as early as 1796 was resorted to largely for the benefit of the waters, which are strongly impregnated with sulphur and iron, and for the vivifying influence of the atmosphere.

There is little or no portion of Adams County destitute of vegetation. The agricultural products are wheat, rye, corn, oats, buckwheat, potatoes, butter, wool, and hay. The lumber is largely chestnut, oak, hickory, pine, and walnut. There is forest enough to attract moisture, and the drainage is such as to entirely protect the population from the influence of malaria.

The chief eminence is the South Mountain, "the first great chain

of hills west of the seaboard," with its various spurs rising from one thousand to twenty-one hundred feet above the sea level. The other principal elevations are Round, Wolf's, Spangler's, Culp's, and Harper's Hills, with round top and granite spur of battle memory, and the Pigeon Hills. The valleys are those of the Conowago and Carroll's Tract, both running parallel with the mountain range.

Geologically, Adams County belongs to the southeastern or seaboard district of Pennsylvania, and is an undulating plain of reddish sandy clayey soil in the northern and western portions; while in the southeastern part a "micaceous soil" is found.

The "Azoic system" is represented in the South Mountain. The "Mesozoic, or new red sandstone formation," spreads itself over a greater portion of the county.

The minerals are *iron* and *copper*, both of which are found in different localities. The iron ore is excellent in quality, "and inexhaustible in quantity." Mining for copper has been started in Hamiltonban Township. The surface indications are flattering. Openings have been made on the Russell farm above Millerstown, and by Dr. Snively of Waynesboro on a property owned by him further in the mountain.

Limestone formations are found and worked in Conowago Valley, adjoining York County. An isolated deposit is used near York Springs Borough, whilst *triasic* layers are found in Carroll's Tract; thus furnishing the agricultural interest with a means of building up the fertility of the soil.

Through the central portion of the county, on a line running northeast and southwest, what are called "trap dykes" occur. They are upheavals from some terrible revulsion of nature, and are composed of "syenitic rocks." Roundtop, Granite Spur, Culp's Hill, and other elevations of the same range, or rather ridge, are examples of this peculiar formation. The boulders form the so-called "granite" of the region.

Adams County was settled as early as 1736 by "Scotch-Irish" and their offspring, immigrants from the lower end of Lancaster and York Counties. Many of their descendants are now among the inhabitants. In the beginning of the present century the county organization was made. In the local history there are few items of interest to the general reader until July, 1863, when the great battle gave her notoriety. To the profession there is little to attract attention until the formation of the Adams County Medical Association. In pursuance of a call a meeting was held in the court-house in Gettysburg, June 14, 1873, attended by Drs. R. B. Elderdice, Robert

Horner, Wm. J. McClure, J. L. Baehr, A. Holtz, C. Thompson, and J. W. C. O'Neal. This meeting was organized by calling A. Holtz to the chair, and appointing R. B. Elderdice secretary, and J. L. Baehr treasurer. A committee was selected to draft a constitution and complete the organization. Each of the gentlemen present paid a year's dues in advance, and the meeting adjourned until Monday, June 23, 1873. In the mean time a notice was forwarded to the practitioners of medicine, located in the different parts of the county (about thirty-five in number). At this meeting, Drs. H. S. Huber, J. P. Brenneman, Wm. C. Stem, E. W. Mumma, Charles Horner, R. N. Meisenhelder, F. C. Wolf, and A. B. Dill presented themselves and united with those previously named in permanent organization. The following gentlemen were selected as officers, and to serve to the end of the year 1874.

President, Robt. Horner; Vice-Presidents, H. S. Huber and A. Holtz; Recording Secretary, R. B. Elderdice; Corresponding Secretary, Wm. J. McClure; Treasurer, J. W. C. O'Neal.

At subsequent meetings the organization was strengthened by the addition of the following-named gentlemen, and in the order following: I. W. Pearson, H. W. Howard, J. N. Smith, Walter H. O'Neal (now of Luzerne Co.), I. W. Hendrix, M. L. Bott (now of York Co.), Theodore T. Tate, E. S. Meals (now of Dauphin Co.), R. S. Seiss, I. W. Trimmer (now of Cumberland Co.), J. P. Lecron, E. Melhorn, A. W. Howard, Geo. W. Jordy (York Co.), O. W. Thomas, and V. H. Lilly.

The organization for 1875, elected as officers: President, J. W. C. O'Neal; Vice-Presidents, I. W. Pearson and J. L. Baehr; Recording Secretary, Chas. Horner; Treasurer, E. W. Mumma; Corresponding Secretary, Wm. J. McClure. The meetings of this year were well attended and full of interest, and is the date of the adoption of a "regular rate of charges."

The organization for 1876 (centennial year) was: President, Charles Horner; Vice-Presidents, R. N. Meisenhelder and J. L. Baehr; Recording Secretary, Walter H. O'Neal; Corresponding Secretary, Wm. J. McClure; Treasurer, E. W. Mumma. In 1877, the following gentlemen were elected officers: President, R. S. Seiss; Vice-President, I. W. Pearson; Recording Secretary, Walter H. O'Neal; Corresponding Secretary, Wm. J. McClure; Treasurer, E. W. Mumma. In 1878 and 1879, the President was R. B. Elderdice; Vice-Presidents, A. B. Dill and J. L. Baehr; Recording Secretary for 1878 Walter H. O'Neal, for 1879 J. W. C. O'Neal; Corresponding Secretary, Wm. J. McClure; Treasurer, E. W. Mumma. The

change in secretary was in consequence of the removal of Walter H. O'Neal to Parsons, near Wilkesbarre, in Luzerne Co., Pa.

During the organization there have been eight withdrawals, all in consequence of removals except the last named: viz., J. W. Smith, of New Oxford; E. S. Meals, of Harrisburg; I. W. Trimmer (Lisburn, Cumberland Co.), Walter H. O'Neal (Parsons, Luzerne Co.), Geo. W. Jordy (York, York Co.), W. J. McClure (York, York Co.), Dr. Wm. C. Stem (*for reason*). For *non-payment of dues* the names of seven have been dropped.

Death has taken two: Dr. H. S. Huber, Vice-President in 1874, died 21st of October, 1875—having served faithfully in the ranks of the profession nearly a quarter of a century; Dr. A. Holtz, president of the preliminary meeting for the county organization, died in 1876 at his residence in Hampton, much regretted and in the prime of his usefulness.

The present membership in good standing, entitled to representation in the State and National Medical organizations, is E. Melhorn, of New Chester; I. W. Pearson and A. B. Dill, of *York Springs Borough*; E. W. Mumma, Bendersville; R. B. Elderdice, of McKnightstown; Reymond S. Seiss, of Littlestown; J. L. Baehr, of Middletown (Bigler P. O.); Charles Horner, Rob't Horner, and J. W. C. O'Neal, of Gettysburg.

Adams County was first represented in the State organization in 1874, and in the American Medical Association in 1875.

During the county organization papers have been presented and read by Dr. Rob't Horner, on Conservative Surgery; Wm. J. McClure, on Phthisis; J. W. C. O'Neal, on Katalysine Spring Water, Alvine Alimentation and Medication, and Puerperal Fever; R. S. Seiss, on Midwifery; R. B. Elderdice, on Typhilitis; J. L. Baehr, on Metritis. Reports of health condition have been received from R. S. Seiss, R. B. Elderdice, Charles Horner, I. W. Pearson, J. P. Lacron, Dr. Scott, and Rob't Horner. Discussions and conversations upon diseases occurring in local practice of many of the gentlemen have been numerous and interesting.

The professional and social bearing of the members towards each other (and through example to non-members) has through the influence of association been much improved, and the profession as a mass have observed the laws as laid down by the Code of Ethics. The county of Adams furnishes employment to about forty gentlemen in the practice of medicine, over half of whom have from time to time been connected with the local organization.

Our county, usually so free from all character of disease (except that of an accidental character, including exposure), has within the

last six months been sorely invaded by endemics of diphtheria and scarlatina. In October, November, and December, Fairfield was visited by diphtheria of a malignant type. Dr. Scott reports "one hundred and seventy-five cases, in which twenty-three were fatal. In connection with the diphtheria there was a prevailing '*influenza*' inviting disease to the air passages." When the cases "were *diphtheritic croup they were uniformly fatal.*" Dr. Scott was not satisfied with the usual forms of treatment, "including the Reiter or Pittsburg form. Theoretically the last named should exempt Pittsburg and its environs from an invasion of the disease."

Dr. R. B. Elderdice, of the adjoining ^{side} to Fairfield, reports twenty-five cases of diphtheria with a fatality of two, one from exhaustion following hemorrhage, the other from a formation of false membrane. His treatment was by chlorate of potassa in saturated solution combined with the tr. chlo. iron, used as a gargle, and internally as an alterative and tonic. Thirteen of the doctor's cases had, in addition, quinia, carbonate of ammonia, and alcoholic stimulants, as the several remedies seem to have been indicated. Milk was given as a diet. When there were local sores they were treated by local applications of carbolic acid, tinct. chlor. of iron with glycerine, in formulas modified to suit the respective cases. The cases did well and the remedies acted kindly.

Dr. Elderdice reports the mortality of his ^{side} as thirteen: viz., croup one, cholera infantum two, diphtheria two, atrophy and debility one, intestinal inflammation three, hydroperitonitis with cirrhosis of liver one, hepatic catarrh (chronic) one, puerperal convulsion one, phthisis (acute) one.

His obstetric practice covers twenty-seven cases: "forceps were used once, cord around the neck in five cases; among the presentations was one footling, one left shoulder, and twenty-five head; there were two premature births, three stillborn, two partially adherent placentas, and one placenta prævia.

The fatal case of puerperal convulsion occurred twelve hours after natural labor was completed in a "*primipara.*" Four hours after labor the doctor was recalled to find his patient in a severe convulsion. The spasms recurred at short intervals and were violent in character, a vein was promptly opened in the arm and the blood suffered to flow in a full stream to the extent of half a litre, and until the pulse was decidedly influenced by the loss of blood. This course was followed by an hypodermic injection of morphia (.008 gram), cold applications to the head, and warm ones to the feet. This course made a decided impression, and governed the alarming symptoms for about two hours, when the spasms returned. Bromide

of potass. was now given in full doses, and Dr. O'Neal, of Gettysburg, was called in consultation. It was decided to reopen the vein and draw more blood, the flow was continued until relaxation was complete. The quantity, two-thirds of a litre; the effect was to control the convulsion for a short time. An *enema* of solution of bromide of potass. and hydrate of chloral was ordered, but not given. The convulsions returned and death occurred at six o'clock in the afternoon, twelve hours after the delivery, and eight hours from the first convulsion. Immediately preceding and following death there was general swelling of the whole muscular system. There had been no prior *edema* of the extremities, nor any other premonitory symptoms indicating convulsions, during or immediately after labor. The sudden outbreak of spasm was the introductory warning. Treatment, though decided, made no lasting impression, and death was as sudden as the invasion was unexpected and alarming.

Dr. Elderdice reports an unusual and interesting case of parturition complicated by an invasion of pneumonia of the right lung. "The inflammation (acute in form) commenced with the labor, and complicated the case. The unusual presence of the characteristic chill, difficulty of breathing, suppressed lochia, were all present. Pulse ran variously from 99 to 120 beats to the minute; temperature from normal to 104°; the pneumonic symptoms yielded to Dover's powder; carbonate of ammonia, quinine, and whiskey given as the several symptoms seemed to indicate.

Dr. Seiss of Littlestown reports his ride as free of endemic disease during the year, except during the appearance of scarlet fever in the fall months of 1878, when he encountered seventeen cases with one death.

Dr. A. B. Dill, of "York Springs Borough," reports the appearance of malignant scarlet fever in the neighborhood some time in December under the circumstances as follows: A child (corpse) of Mr. Overholz, of Centreville, was brought from Centreville, Cumberland County, to the house of Mrs. Lydia Smith, in the northern portion of the county (Adams), and taken from there to the "Ground-oak Church" near Upper Bermudian Creek; in the church and in the presence of the assembled congregation the coffin was opened; in eight or ten days, cases of scarlet fever developed among those who had been in the congregation. Eighteen to twenty cases happened among these people. From this point the disease spread in a southeast direction, taking "York Springs Borough" in its course; then the epidemic turned southwest, following the valleys skirting the highlands to Arendtsville and neighborhood. "York Springs Borough" with a population of 430 had 10 deaths.

Dr. I. W. Pearson, of the same neighborhood, traces the origin of the epidemic to the same source, and represents that the disease "was not confined to children, but attacked all ages and sexes from three months to fifty years. The mild cases were those who had had a previous attack of scarlatina. The previous attack seemingly acting as a modifier, just as vaccination modifies smallpox. The number of cases under treatment was about two hundred, and the mortality fearful" (number not reported). The *endemic* was preceded by a prevailing 'influenza' partaking of the nature of an inflammation of the mucous membrane of the stomach and bowels, in children, similar to the ordinary summer complaint (cholera infantum). This preliminary affliction was in the preceding October and November. This 'influenza' yielded promptly to remedies. Following this (and in December) were cases of 'catarrh fever,' complicated with cough but no mucous secretion, the fever not continued, expectoration light, liver engorged, bowels constipated, urine scanty, and, as a rule, but little secreted. Anodynes and expectorants made little or no characteristic impression. Mercurials and diuretics acted kindly; and convalescence was quick under the influence of quinine. There were no deaths, and the cases lasted about ten days. Then followed the endemic of malignant scarlet fever."

Dr. J. P. Lacroix reports this same epidemic as endemic in Arendtsville and neighborhood; the affection seemingly taking hold of any material at all susceptible.

Dr. Charles Horner reports the epidemic as he saw it in council with Dr. Thomas; his account is forwarded with this report.

Dr. Robert Horner's report speaks for itself, and is inclosed.

The rain-fall during the year has been forty-one inches.

By request of the members of the Society, expressed by resolution, the verbal report made at the meeting in September, 1878, by Dr. J. W. C. O'Neal, on *Rectal Alimentation and Medication*, was reduced to writing, and read at the January meeting in 1879, and by order directed to be forwarded to the State Medical Society as part of this report.

We append a map of Adams County, kindly furnished by Mr. J. P. Lesley of the "State Geological Survey," on which is marked the locality of the epidemic of scarlet fever and diphtheria. To Prof. Croll, of Pennsylvania College, we are indebted for the statistics relating to population, and its divisions, latitude and longitude, etc.; to Mr. A. E. Lehman, of State Geological Survey, for elevation of high points; to Prof. Bickel, of Pennsylvania College, for "rain-fall;" and to others for further information, whose names have slipped the memory.

Mountain Elevations.

From A. E. Lehman's Map for Geological State Survey.

	Feet above sea level.
Highest point near county line on Shippensburg Road	2100
Highest point on Green Ridge	2000
Highest point on Cold Spring Road	1770
Pinch Gut	1620
Mary's Hill	1490
Mountain west of Narrows	1485
Caledonia (Cold Spring)	1450
High Point, Chambersburg Pike	1440
Newman's	1355
James Bigham's (Cold Spring Road)	1320
Corwell's Tavern	1310
Raven Rock	1290
Rock Top (west of Cashtown)	1210
Graffenberg	1020
Mt. Alto	1000
Willow Grove	970
Caledonia Furnace	955
Cashtown	800
Gettysburg	545

May Weather at Gettysburg during 27 years.

From observations made by M. Jacobs, dec'd, Prof. of Mathematics, etc., in Pa. College,
and reported by his son Rev. Henry E. Jacobs.

Mean temperature, 60.836°.

Lowest monthly mean, 56.90°, 1850.

Highest monthly, 65.33°, 1864.

Maximum, 90°, May 22 and 24, 1863.

Minimum, 32°, May 1, 1847; May 3, 1851.

Mean maximum, 86.18°; average date of maximum, 18th.

Mean minimum, 38.88°; average date of minimum, 11th.

Range in 27 years, 58°.

Greatest monthly range, 57°, 1851.

Least monthly range, 36°, 1858.

Greatest range in least time, 44° (40 hours), 1844.

Mean rain-fall, 3.641 inches.

Greatest rain-fall, 10.600 inches.

Least rain-fall, 1.100, in 1845.

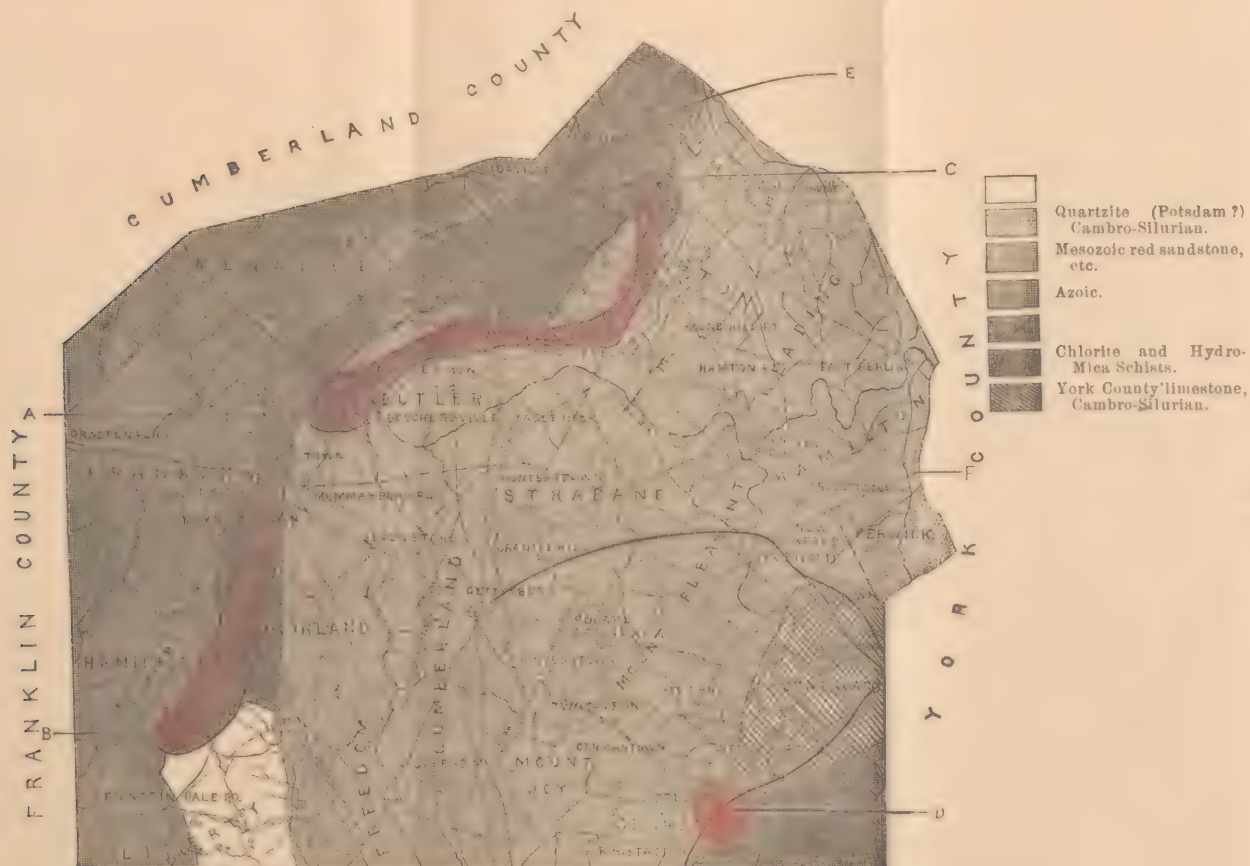
Average number of rain days, 13.13.

Most rain days, 21, 1846, 1848.

Fewest rain days, 8, 1855, 1862.

As indicative of the weekly progress of the season, the mean of the temperature of the following dates for a period of 18 years may be of service: 1st, 56.05°; 8th, 58.02°; 15th, 62.60°; 22d, 62.55°; 29th, 65.29°

PRELIMINARY GEOLOGICAL MAP OF ADAMS COUNTY, FROM THE SECOND GEOLOGICAL SURVEY OF PENNSYLVANIA.



A. Scarlet Fever Endemic. Drs. Lecour, Horner, and Thomas, Reporters.

B. Diphtheria. Drs. Long, Scott, and Elderdice, Reporters.

C. Endemic of Scarlatina. Drs. Dill and Pierson, Reporters.

D. Endemic of Scarlet Fever. Dr. Seiss, Reporter.

E. Scarlet Fever originated at Ground Oak Church.

F. Beaver Creek forms the eastern boundary between Adams and York counties. It empties into the Conewago near East Berlin.

The maximum temperature occurred once on the 1st (in 1858), and the minimum temperature twice on the 31st (in 1845 and 1856). In 1845, 1855, 1861, and 1862 the maximum of April was greater than May. In 1839, 1841, and 1846, the maximum of May was greater than that of June, and in 1843 and 1859 the minimum was lower in June than in May. The highest monthly mean temperature is within .51 of a degree of the lowest mean temperature of June, and the lowest mean temperature of May is 1.3 degree above that of the highest of April. On May 3d and 4th, 1861, the South Mountain, near Gettysburg, was covered by seven inches of snow. At Gettysburg, there was both rain and snow.

Very respectfully submitted,

J. W. C. O'NEAL, *Secretary.*

Dr. CHAS. HORNER, of Gettysburg, reports as follows:—

In our practice during the past year, we have very little of interest or value to record. We have had no epidemics in our immediate field of labor; and there has been a remarkable exemption from the ordinary diseases of summer and winter. Not so, however, with some parts of the county. In the neighborhood of Fairfield, situated about eight miles west of Gettysburg, near the foot of the South Mountain, *diphtheria* of a malignant and fatal type has prevailed during the past autumn and winter months.

Arendtsville, a small town located about eight miles north of Gettysburg, and on elevated and rolling ground, was visited by an epidemic of *scarlatina* during the winter months. The disease spread rapidly, and assumed a severe *anginose* form. I attended in consultation with my friend, Dr. O. W. Thomas, of Arendtsville, several families during the height of the epidemic. Mr. G. P., merchandising in the town, had *nine* children when the dreaded exanthematous fever made its appearance, all of whom were soon prostrated by the malady. The mortality in this family of children was *five*. *Three* died in a few days from the severity of the attack, being typhoid in its character. The pulse was frequent and very feeble, severe inflammation of the throat, with considerable swelling, and great difficulty in deglutition.

The throat was covered with a pseudo-membraneous exudation; breath very offensive, severe coryza, delirium with slight stupor, dry tongue, and purple color of the eruption. The *fourth* died from croup; the inflammation of the throat extending to the larynx; and the *fifth* from the sequelæ of the disease. This child appeared to be convalescing kindly for several weeks, moving about in the house, when

complete suppression of urine took place, followed by grave cerebral symptoms, from which it rapidly sunk.

The ages of these children ranged from *one* up to *eighteen* years; and the family was of a decided strumous diathesis. I also called to see, with Dr. Thomas, a son, aged nine years, of Mr. J. H., residing in the town. This boy was suddenly seized with a violent convulsion. The history of this case I learned from the doctor to be the following: He was among the first to suffer from the epidemic poison, but had been convalescing favorably. Indeed, he was so well, that he had been going to school for several days. Taking cold, no doubt, from exposure, he became dropsical, urine albuminous, followed by convulsions. In this case brisk purgation, with the use of diuretics, relieved the dropsy and brain difficulty; and the patient made a good recovery. It has long been a noticeable fact, during the prevalence of scarlatina, that a few families are almost desolated by the epidemic poison, either from some peculiarity in the constitution of the children, or from some local cause; or, perhaps, we might say more properly, from both. Such was the observation of the attending physicians during the epidemic. These cases are regarded as the malignant form of the disease, and usually terminate fatally in *twenty-four hours* or *less*. Indeed, death generally takes place in the first stage of the malady from congestion, especially of the brain, marked by coma and convulsions.

From information furnished by Dr. O. W. Thomas, I learn that the fever made its appearance in Arendstville about the 1st of Feb. of the present year, and continued until the 20th of April following. During this period of time there were 124 cases, of which number 19 died, being a percentage of 15.32. This result was in an area of four miles square. From this specified locality the fever spread, and quite a number of cases made their appearance in the vicinity of Arendstville, and in the neighboring villages. But they were mild in character, the doctor says, and only one death took place, and that was from some complication of the disease.

"In tracing the epidemic to its origin," the doctor remarks, "it was certainly that of *contagion*." During the latter part of January, Mr. L., with his family, of our town, made a visit to the neighborhood of Petersburg in this county, where the fever was prevailing in a severe form. In three or four days after the family returned home, one of the children, a little girl, was attacked with scarlatina, though of a mild type. Two other children, a little girl and boy, in the same family were attending the *common school*, and occupying the *same bench*. In less than a week they were both prostrated by

the fever. The doctor then adds "that in *three weeks* from this time the school, numbering 60, was reduced to 18 pupils."

The treatment pursued in the grave cases of the fever, and the one that proved the most successful, was the stimulating and supporting plan. We administered from *ten* to *fifteen* drops of the tincture of chloride of iron and *one* or *two* teaspoonfuls of spiritus frumenti alternately every two hours, regulating the dose of each, according to the age of the child.

As a gargle we employed the carbolic acid and the liquor calcis, in the proportion of from four to eight drops of a strong solution of the former, to a fluidounce of the latter. We likewise used the chlorate of potassa as a wash for the throat. If the children were unable to gargle on account of age, we used the vapor of carbolic acid and liquor calcis by inhalation. When the patients refused to swallow the tincture of chloride of iron or the carbonate of ammonia, we substituted the sulphate of quinia in mixture. Occasionally deglutition is almost impossible from the inflammation and tumefaction of the throat; we then resort to injections per anum of whiskey, sulphate of quinia, and beef-tea. The diet in these cases consisted of liberal quantities of milk and beef-tea.

The mild cases of the fever, I am informed by the attending physicians, required but little medication. Some gentle laxative medicine, together with diaphoretics, and sponging the surface of the body, particularly that of the face, breast, and upper extremities, with vinegar and water, was the only treatment found necessary. The plan of inunction was likewise used in these cases with marked benefit. Keeping a uniform and proper temperature in the sick-room, a thorough ventilation of the dwellings, and a liberal use of disinfectants were strictly enforced during the epidemic.

Dr. R. HORNER reports:—

Our practice during the last year has not been characterized by any great amount of disease, and with few exceptions by any special increase of their gravity.

We have had scarlatina at intervals during the year, a few cases at a time, and generally mild in type.

Diphtheria has been prevalent in our practice during the winter, and with few exceptions has been in a form that yielded readily to treatment.

In surgery we had an interesting case of tracheotomy.

On the 18th of last August, my associate, Dr. J. M. Radebaugh, was called in consultation with Drs. Howard and Mumma, and examined a boy aged four years, who, ten days before, had gotten a

coffee grain into his windpipe. During the first eight days auscultation showed the grain to be movable. From that time its rattle could not be detected, though there continued to be violent spasmodic attacks, each of which threatened suffocation.

Auscultation showed clearly obstruction in the right bronchus. The usual remedies having been previously tried without avail, Dr. R. performed tracheotomy; and the violent effort consequent having failed to dislodge the grain, he introduced a long bent probe into the right bronchus, when the grain was immediately expelled. The wound healed promptly, and there has been no subsequent trouble.

RECTAL ALIMENTATION AND MEDICATION AS REPORTED TO THE ADAMS COUNTY MEDICAL SOCIETY, SEPTEMBER, 1878.

By J. W. C. O'NEAL, M.D., Gettysburg.

A fluid thrown into the bowels by means of a pipe (as a passage) is termed in medical and surgical parlance a Glyster.

Among the ancients and before the Christian era, medicines were administered in this way, and the same practice has been continued to the present day. So common was the procedure, that in looking up the bibliography of the subject, it seems remarkable that the writer should be unable to place his hand upon a single monograph detailing an account or history, either of the instruments used, or of the subject in general. Its use and application was so common and seemingly simple that writers did not consider it necessary to enter into a detail of the method of its application.

The early fathers in medicine gave circumstances under which the use of the then simple instrument (a bladder and a quill) was indicated. Costiveness, abdominal pains, spasmodic strictures of the intestines, and the whole "category" of bowel and intestinal trouble, then, as now, called for the use of this simple instrumental interference.

An old work on medicine, written by Cornelius Celsus, and divided into eight books, and issued in the early ages of medical literature, gives the then history and application of glysters, with most of the circumstances calling for their use, and the mode and manner of their application; the subject matter of the procedure being seemingly as well understood then as it is now.

The original contrivance was simply a bladder, having inserted into its neck a quill from the wing of a goose, and this for years served the purpose of the now finished and durable hard rubber

syringe, or the convenient arrangement of the gum extension injection pipe.

Years ago after administering an enema for the purpose of emptying the bowels, and thus relieving spasmodic pain, it was noticed that the pain was relieved without the bowels being emptied. In other words the effect was produced, *but not in the looked-for manner*. The *paroxysm of pain was relieved*, the *muscular system relaxed*, and the nervous system controlled. The presence of the material thrown into the lower bowel caused no irritation, and failed to stimulate the peristaltic action, but had quieted the "*complaint of nature*" (pain), and invited "her sweet restorer" (sleep).

On another occasion, a case of nausea, somewhat persistent, a consequence of child bearing, the bowels being constipated, an enema was directed for the purpose of inviting an alvine discharge. The nausea was relieved, and without the expected passage. These enemas carried both stimulants and anodynes. Their action was as if administered by the mouth, provided the stomach had its normal power. They quieted the urgent symptoms as fully as an anodyne would have done if administered endermically.

These observations induced further reflection on the subject, and after a time a test case was encountered, in which an inflamed stomach refused to receive ingesta to support an exhausted system; and the idea suggested itself to resort to the glyster to support and nourish exhausted nature. Articles of diet, in the shape of *rich milk*, *egg-nogg*, and beef soup, were thrown into the lower bowel, retained, and gladdened the anxious friends of the afflicted.

In 1867 a case of typhoid fever was encountered, when the stomach refused to receive food, after the system had been fearfully reduced by the inroads of disease. Injections were resorted to as a means of bridging the period when normal support would not be tolerated. For eight days, at intervals of four hours, milk and eggs, alternated with beef soup, strained, were administered. As many as four enemas were at times retained, and when a motion of the bowels was invited or forced, nothing would come from them except effete matter, showing that the absorbent vessels had appropriated all the administered nourishment, and passed the effete matter which was useless. In answer to a recent letter of inquiry to the mother of this patient, the following is a portion of the reply: "I have not forgotten the faithfulness and kindness shown my son during his illness in 1867. His age at the time of the attack was eleven years. The active part of his affliction continued five weeks. During the first stage of the fever he was restless and delirious, and when the fever was broken he was entirely prostrated, and would receive

no food, his stomach rejecting all articles of nourishment. It was then that strength was imparted to him by the administration of injections of milk, egg-nogg, and beef soup, at intervals of four hours. His recovery seemed wonderful, and may be entirely attributed to the support judiciously administered at a period when the stomach refused entirely to receive food."

In addition to the regular feeding of this case by the rectum, he was washed night and morning with dilute alcohol, and after each washing was annointed with hog's lard. His recovery was complete; and about a year ago, having arrived at the age of manhood, he was settled in life by matrimony. This case illustrated fully the power of the lower bowel to receive and appropriate food, when the stomach wholly refused or was unable to perform its natural functions, and but for this resource the case must have proved fatal.

Following this case was a number of others fully sustaining the power of the lower bowel to appropriate food when thrown into the rectum.

In the summer of 1876, attention was directed to a case of nausea and vomiting, the result of pregnancy. The sufferer was the wife of a cultured and intelligent gentleman, a physician not in practice. In its character it was severe and alarming; so much so that a member of the profession was summoned from a neighboring city in consultation. The whole catalogue of remedies (and their name is legion) was exhausted without quieting the distressing and alarming gastric irritability. *Nothing would remain on the stomach.* During this long period of twenty-four days, this lady was supported entirely by rectal injections. When this mode of relief was suggested to the anxious husband, a smile of derision was on his countenance, and his consent was obtained only because all other means had been exhausted.

This lady is to-day a living example of the power, not only of *alvine support*, but of *alvine medication*.

During the spring of 1878, a farmer living on Rock Creek was attacked with what seemed to be a colic, the pain of which promptly yielded to an anodyne thrown under the skin by the endermic syringe, but returned repeatedly whenever food was taken normally. Food by the stomach was discontinued, and he was entirely supported by alvine injections from the 18th of April to the 20th of July. The aliment used was milk and beef soup, given in doses of from four to six ounces once in four hours (for a time), then once in six hours.

This gentleman (Mr. David Conover) is living evidence (and in health) of the power of rectal support, administered when the stomach was in a condition not to receive or digest nutritive aliment.

A case of malarial poisoning and nervous depression was supported during last summer (1878) from the 31st of May to the 16th of August, almost entirely by nourishing matter administered by the glyster pipe, and died then only *when the mode and manner of giving the nourishment was suspended*.

This case, and the particulars surrounding it, was for a time under the observation of Dr. Charles Horner in consultation with the regular medical attendant. The patient presented much that was remarkable and interesting. The nervous and physical prostration was such as to invite the observation not only of different members of the profession, but of the friends and the community generally. The relief given by rectal alimentation was marked and satisfactory.

There is little doubt entertained that there are many cases of death caused by the want of proper food, and the ability of the stomach to receive and appropriate it. Hence the anxiety manifested by friends, relative to the absence of the power to take nourishment. Medical men join in this anxiety, and sometimes are as importunate and zealous in morally forcing upon the natural organ material it will not take *as the most interested friends*. The question then naturally arises, Can this class of persons be sustained by rectal alimentation? The cases heretofore alluded to indicate that they can. It is evident that many can be thus sustained until the normal powers of the stomach return to their natural condition. There are many persons who have imprudently overtaxed and overpowered their digestive powers, and are victims of dyspepsia, and require almost entire rest; this can be given so that the organs of digestion, by the aid of the rectum as a receptacle of food, can have sufficient leisure to be restored to the normal condition.

In the case of nausea from the pregnant state, the sufferer expressed entire satisfaction produced upon her feelings on the reception of food in the anal region; a satisfaction almost like unto that of deglutition. Nature thus tells us of the applicability of the procedure. If this should not satisfy the inquirer, take another indication,—*the anal tolerance of the contents of the syringe*. And when these two sources of evidence unite, it seems that nature can speak in no stronger language or *plainer terms*.

Another symptom of encouragement is the yielding of disease, strength coming to the weak, and, in time, an entire restoration of health. Compare these indications with the Conover case. The exacerbations of pain were produced when he swallowed nourishing fluids or strengthening solids. His stomach would not even tolerate milk; and yet the lower bowel would not only receive it kindly, but would retain it until the absorbent vessels would appro-

priate all the nourishing material it contained. Indeed, glysters could be accumulated one upon another, until there would be three, four, and five repetitions.

With these facts before us, should the human system be allowed to lose its strength, and suffer from debility for the want of food? With this knowledge and experience to illustrate, the profession would be blamable did it not give the procedure a fair and ample opportunity to vindicate its claims. This matter calls for thorough investigation, and will be found to apply measurably to affections of the upper bowels and stomach, especially in cases where it is desirable not to irritate an inflamed mucous membrane by the presence of ingesta. Take, as examples, gastric inflammation, spasmodic stricture of the stomach or intestines, a reversion of the peristaltic motion, and the line of diseases of a similar character, and it will be found that a system supported by *rectal alimentation* and treated by *anal medication*, will have a decided advantage over that treated in the ordinary way by carminatives, absorbents, alteratives, detergents, stimulants, tonics, anodynes, and the whole list of ordinary remedial agents as employed by medical routinists.

The physiology of the rectum as a lower stomach is not understood clearly; it is thought, however, to nourish through the power of the absorbent vessels. That food is taken up and appropriated there can be no doubt. Precisely how taken up, or how appropriated, is not as yet clearly intelligible to the observer. Feces held in the bowels after an invitation to be passed by nature, become dry, and at times hard, losing much of the moisture that renders them plastic when normal. Milk thrown into the rectum, when permitted to remain, parts with its nourishing properties in a similar manner. Soups, etc., send back only their effete matter. As the fluid is taken from the feces, so are the nourishing principles picked from the articles of alimentation. Reasoning from this standpoint, may we not come to the conclusion that the use of a part may develop a function; and that a condition of disease may so sharpen a rudimentary power as to enable it to perform a duty hardly designed in the primary organization? With much temerity the whole subject is respectfully referred to the consideration of the profession.

